

ATTORNEY DOCKET NO.
017575.0414

PATENT
09 736,043

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Yue (nmi) Kuo
Serial No.: 09 736,043
Filing Date: December 12, 2000
Art Unit: 2823
Examiner: William D. Coleman
Title: SEMICONDUCTOR CONDUCTIVE PATTERN
FORMATION METHOD

Assistant Commissioner
for Patents
Washington, D.C. 20231

Dear Sir:

INFORMATION DISCLOSURE STATEMENT

Applicant respectfully requests, pursuant to the provisions of 37 CFR §§ 1.56, 1.97 and 1.98, that the references listed on the attached PTO-1449 form be considered and cited in the examination of the above-identified application. Copies of these references are enclosed for the convenience of the Examiner. Furthermore, pursuant to 37 C.F.R. §§ 1.97(g) and (h), no representation is made that these references qualify as prior art or are material to the patentability of the present application.

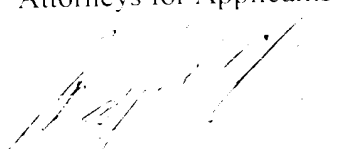
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Pursuant to 1.97(c) and 1.17(p), the stipulated fee of \$180.00 is enclosed herewith. The Commissioner is hereby authorized to charge any additional fee or credit any overpayment to Deposit Account No. 02-0384 of Baker Botts, L.L.P.

Respectfully submitted,
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Date: 2/6/02 2002

Enclosures: Form PTO-1449, and one copy
of each listed document

PTO 1449

Application No.

09 736,043

Applicant

Yue (min) Kuo

Inventor Name

017575.0414

12 12 2000

**Information Disclosure Citation
In an Application**

U.S. PATENT DOCUMENTS

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A						
B						

FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)					DATE
C	"Control Using Cl ₂ Gas as a Single Reactant," J. Vac. Sci. Technol. B, 15 (2), p. 237					1997
D	"National Technology Roadmap for Semiconductors (NTRS)," Semiconductor Industry Association (SIA)					1997
E	H. Miyazaki, et al., "Copper Dry Etching with Precise Wafer-temperature Control Using Cl ₂ Gas as a Single Reactant," J. Vac. Sci. Technol. B, 15 (2), p. 237					1997
F	J.W. Lee, et al., "Copper Dry Etching with Cl ₂ -Ar Plasma Chemistry," J. Electrochem. Soc., 145 (7), p. 2585					1998
G	Y. Ohshita, et al., "Lower Temperature Plasma Etching of Cu Using IR Light Irradiation," Thin Solid Films, 262, p. 67					1995
H	G.C. Schwartz, et al., "Reactive Ion Etching of Copper Films," J. Electrochem. Soc., 130, p. 1777					1983
I	B.J. Howard, et al., "Reactive Ion Etching of Copper in SiCl ₄ -based Plasmas," Appl. Phys. Lett., 59, p. 914					1991
J	M. Markert, et al., "Copper Dry Etching Technique for ULSI Interconnections," Microelectronic Engineering, 35, p. 333					1997
K	IBM Journal of Research and Development, special issue on Plasma Processing, Guest editor, Y. Kuo, 43(1 2)					1999
L	Sangheon Lee, et al., "Process Study of a New Copper Dry Etching Method - The HCL Chemistry," Electrochem. Soc. Plasma Processing XIII Proceedings					2000
M	Sangyu Lee, et al., "Amorphous Silicon Thin Film Transistor Fabricated with a New Copper Dry Etching Method," Procs. ECS TFTV Symp., Phoenix AZ, pp. 34-39					2001
N	Sangheon Lee, et al., "A Reactive Ion Etching Based Copper Etch Process" Thin Film Microelectronics Lab., TAMU, presented on 11/02/99, Dallas, Texas					1999
O	Yue Kuo, et al., "A Reactive Ion Etching Based Copper Etch Process," AIChE's 1999 Annual Meeting, Research & Development for Results, www.aiche.org					1999
P	Yue Kuo, et al., "Amorphous Silicon Thin-Film Transistors Fabricated with a New Copper Etching Method," Meeting Abstracts of the Electrochemical Society, Abstract No. 762					2000
Q	Yue Kuo, et al., "A Novel Plasma-Based Copper Dry Etching Method," Jpn. J. Appl. Phys., Vol. 39, pp. L188-L190					03 15 2000
R	Yue Kuo, et al., "A New Copper Reactive Ion Etching Process," Meeting Abstracts, The 1999 Joint International Meeting, Volume 99-2, Abstract No. 704, Presented October 20, 1999					1999
S	Yue Kuo, et al., "Plasma Process of a New Copper Dry Etching Method," Meeting Abstracts, Toronto, The Electrochemical Society, Volume 2000-1, Abstract No. 296					2000
T	Yue Kuo, et al., "A New Copper Dry Etching Process," The Electrochemical Society, Inc., Proceedings Volume 99-30, pp. 328-335					
U	Yue Kuo, et al., "[190i] - A Reactive Ion Etching Based Copper Etch Process," American Institute of Chemical Engineers, www.aiche.org/conferences/techpro...aperdetail.asp?PaperID=3270&DSN=annual99					1999

V	Yue Kuo, et al., "A Novel Room-Temperature Plasma-Based Copper Etching Process for VLSI," Paper #210 presented in 2000 VLSI Multilevel Interconnection Conference (VMIC), Santa Clara, California	06/27/2000
W	Brian Chapman, "Glow Discharge Processes - Sputtering and Plasma Etching", p. 314	1980
X	Brian Chapman, "Glow Discharge Processes - Sputtering and Plasma Etching", p. 317	1980

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

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